Power Supply Procurement Plan
2024 – 2033

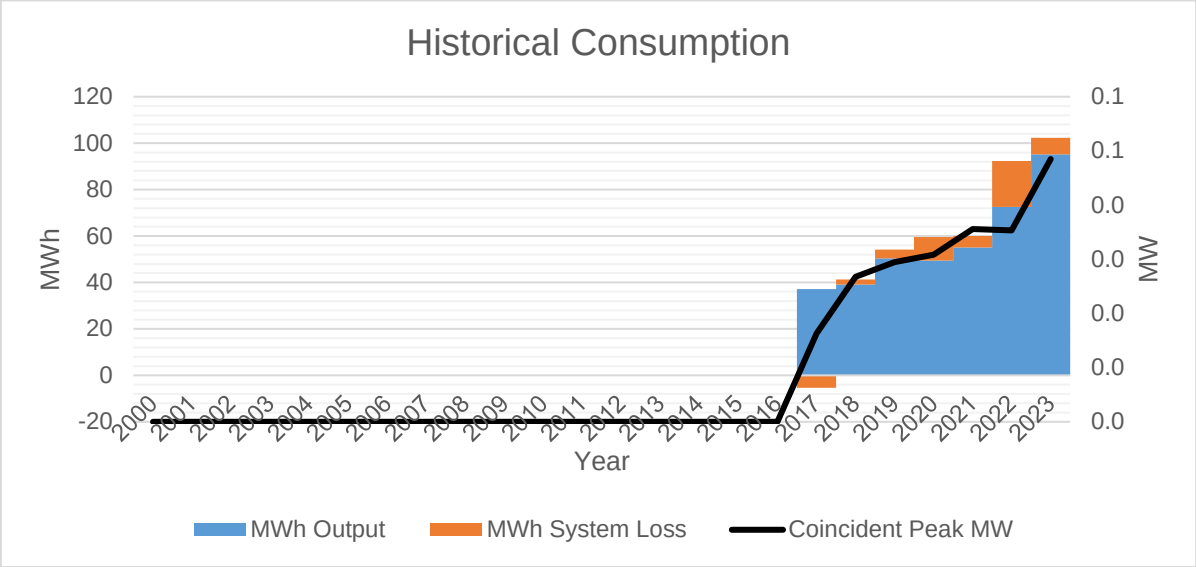
SIIG Cinco Rama

SAMAR II ELECTRIC COOPERATIVE, INC.

Historical Consumption Data

	Coincident Peak MW	MWh Offtake	WESM	MWh Input	MWh Output	MWh System Loss	Load Factor	Discrepancy	Transm'n Loss	System Loss
2000	0.000	0.00	0.00	0.00	0.00	0.00	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
2001	0.000	0.00	0.00	0.00	0.00	0.00	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
2002	0.000	0.00	0.00	0.00	0.00	0.00	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
2003	0.000	0.00	0.00	0.00	0.00	0.00	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
2004	0.000	0.00	0.00	0.00	0.00	0.00	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
2005	0.000	0.00	0.00	0.00	0.00	0.00	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
2006	0.000	0.00	0.00	0.00	0.00	0.00	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
2007	0.000	0.00	0.00	0.00	0.00	0.00	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
2008	0.000	0.00	0.00	0.00	0.00	0.00	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
2009	0.000	0.00	0.00	0.00	0.00	0.00	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
2010	0.000	0.00	0.00	0.00	0.00	0.00	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
2011	0.000	0.00	0.00	0.00	0.00	0.00	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
2012	0.000	0.00	0.00	0.00	0.00	0.00	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
2013	0.000	0.00	0.00	0.00	0.00	0.00	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
2014	0.000	0.00	0.00	0.00	0.00	0.00	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
2015	0.000	0.00	0.00	0.00	0.00	0.00	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
2016	0.000	0.00	0.00	0.00	0.00	0.00	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
2017	0.000	31.86	0.00	31.86	37.17	-5.31	#DIV/0!	0.00%	0.00%	-16.68%
2018	0.027	41.25	0.00	41.25	39.05	2.20	17.60%	0.00%	0.00%	5.33%
2019	0.029	54.13	0.00	54.13	50.42	3.70	20.95%	0.00%	0.00%	6.84%
2020	0.031	59.57	0.00	59.57	49.48	10.09	22.03%	0.00%	0.00%	16.93%
2021	0.036	59.99	0.00	59.99	55.03	4.96	19.24%	0.00%	0.00%	8.27%
2022	0.035	92.33	0.00	92.33	72.50	19.84	29.84%	0.00%	0.00%	21.49%
2023	0.051	102.32	0.00	102.32	95.18	7.15	23.01%	0.00%	0.00%	6.98%

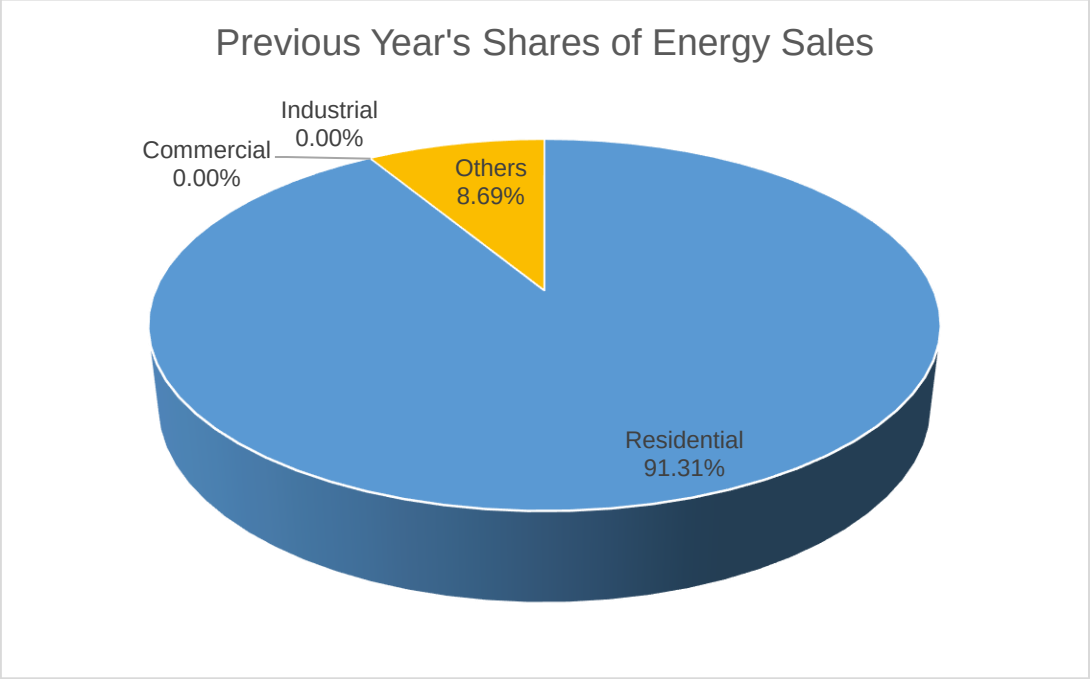
Peak Demand increased from 0.035 MW in 2022 to 0.051 MW in 2023 at a rate of 43.72% due to increasing number consumer. MWh Offtake increased from 92.33 MWh in 2022 to 102.32 MWh in 2023 at a rate of 10.82% due to power supply extended to 8 hours daily. Within the same period, Load Factor ranged from 17.60% to 23.01%. There was an abrupt change in consumption on 2023 due to never operating at full capacity for the entire 24-hour day. From 2017 to 2018, there was a minimum load in MW, as it marked the beginning of the barangay's energy consumption.



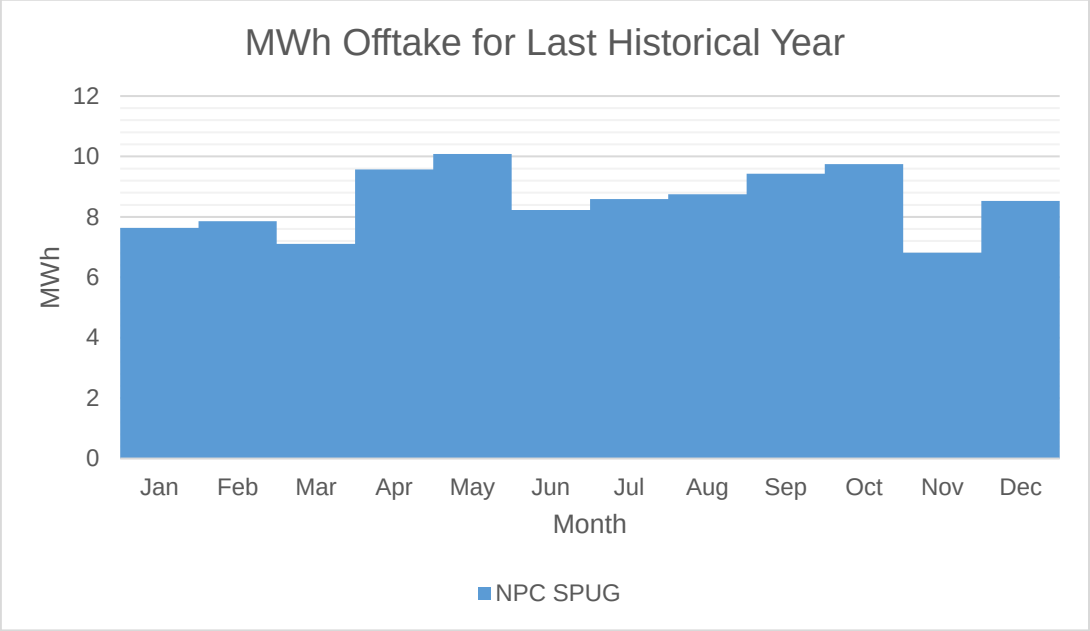
MWh Output increased from year 2022 to year 2023 at a rate of 31.29%, while MWh System Loss decreased at a rate of 6.98% within the same period. Notably, sudden spike of MWh of January and July which can be attributed due to some adjustment the number of reading days.

Historically, Transmission Loss ranged from 0% to 0% while System Loss ranged from 21.49% to 6.98%. Transmission Loss peaked at 0.00% on year 2023 because there is no transmission line. System Loss peaked at 21.49% on year 2022 because of the problems on the non-technical side that have encountered. However, by 2023, System Loss improved significantly, reaching 6.98%, which suggests an overcompensation or recovery of energy, possibly due to improvements in system efficiency or reduced consumption relative to generation.

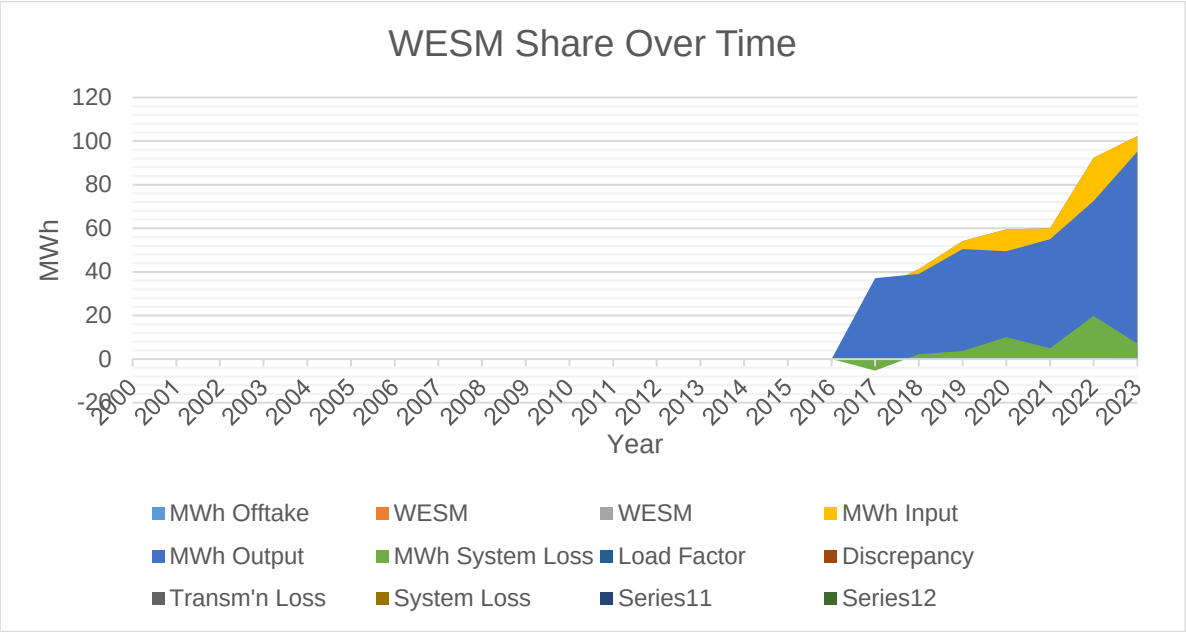
In addition, data is available on the feeder technical loss side, but the values for both technical and non-technical losses are minimal in MWh. Notably, the non-technical loss shows a negative value, which can be attributed to discrepancies in the number of reading days.



Residential customers account for the bulk of energy sales at 91.31% due to the high number of connections. In contrast, other customers accounted for only 8.69% of energy sales due to low number of connections.

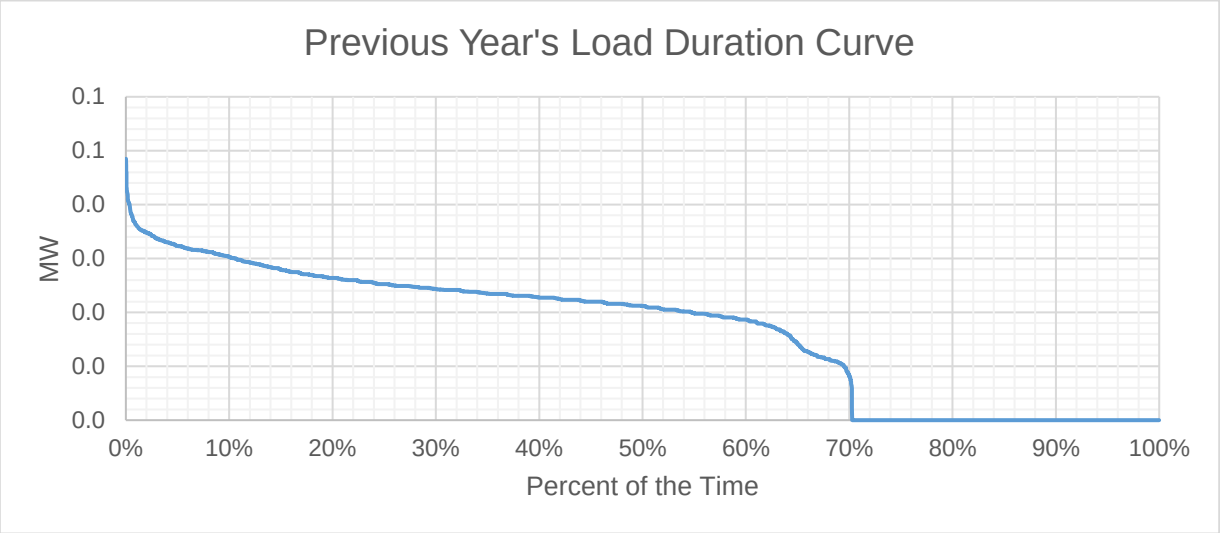


For 2023, the total Offtake for the last historical year is higher than the quantity stipulated in the PSA. The PSA with NPC SPUG accounts for the bulk of MWh Offtake.

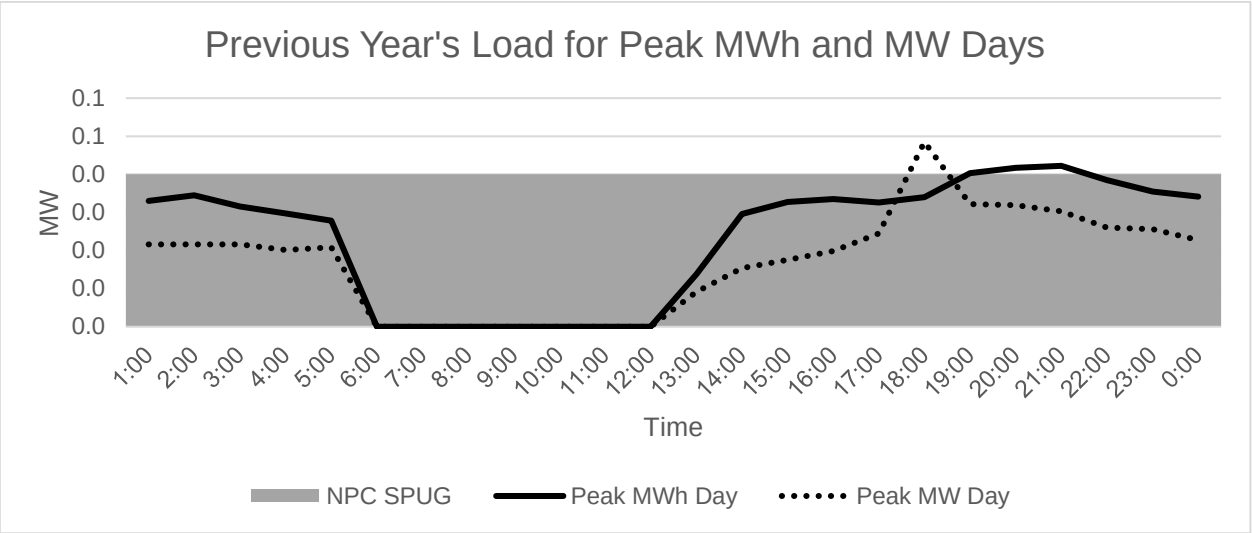


No WESM Offtake input data from SPUG. Most SPUG areas in the Philippines do not participate in WESM due to limited infrastructure, such as the absence of grid connectivity, automated systems, and WESM-compliant metering. Many operate on isolated grids with low, unpredictable demand, making market participation costly and economically unviable. WESM participation, SPUG areas must meet technical, operational, and regulatory requirements, including grid interconnection, demand-supply forecasting, real-time monitoring, and stakeholder engagement, while ensuring economic viability and alignment with missionary electrification goals.

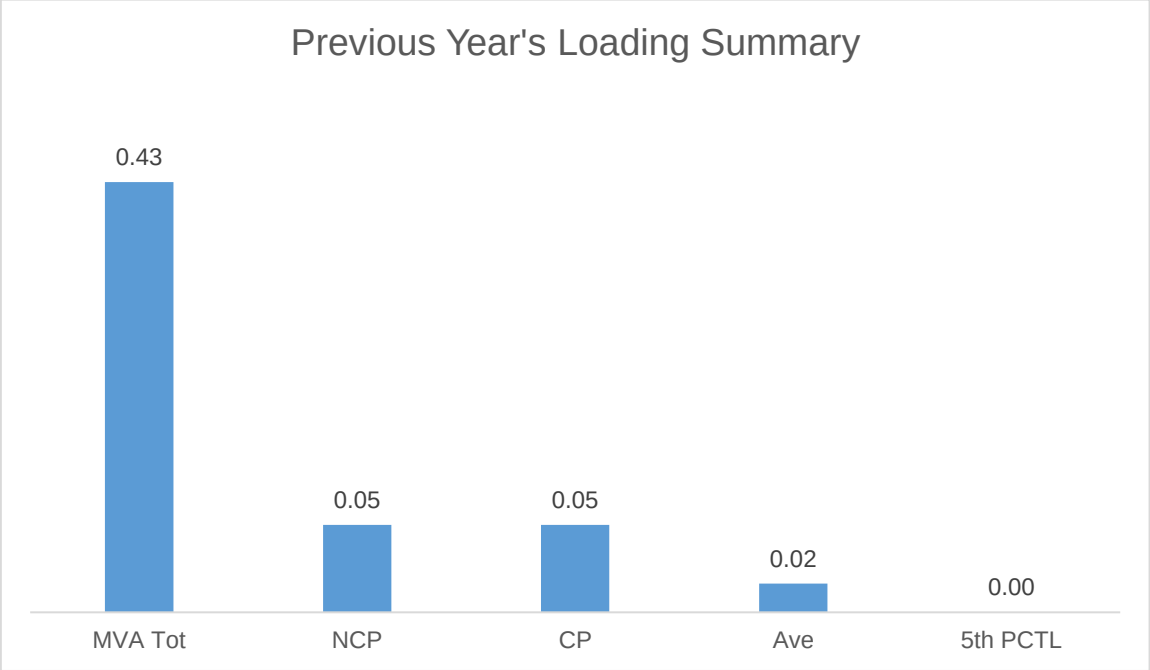
Previous Year's Load Profile



Based on the Load Duration Curve, the minimum load is 0.022 MW, and the maximum load is 0.0485 MW for the last historical year. The zero (0) MW caused of line fault occurs when there is a failure or malfunction in one of the power lines or components (such as transformers, circuit breakers, or conductors) that transmits electricity. This can be caused by various factors such as equipment failure, weather events (e.g., storms, lightning), physical damage (e.g., tree branches falling on power lines), or human errors. When such a fault occurs, the affected section of the lines will be disconnected or isolated to protect the system from further damage, which results in a complete loss of power (0 MW) for that section.



Peak MW and MWh occurred on the month of May due to effect of higher ambient temperature. The evening (5:00–9:00 PM) sees the highest demand, with the Peak MWh Day showing a sharp spike around 6:00 PM, and the Peak MW Day plateauing slightly later, between 7:00 and 8:00 PM. After the evening peak, demand gradually declines into the late night (9:00 PM–12:00 AM), tapering toward baseline levels. This pattern reflects typical energy consumption trends, with minimal usage during early hours and significant peaks during evening activity.



The Non-coincident Peak Demand is 0.05 MW, which is around 11.63% of the total substation capacity of 0.43 MVA at a power factor of 0.80. The load factor or the ratio between the Average Load of 0.02 MW and the Non-coincident Peak Demand is 40%. A safe estimate of the true minimum load is the fifth percentile load of 0 MW which is 0% of the Non-coincident Peak Demand.

Metering Point	Substation MVA	Substation Peak MW
CINCO RAMA	0.43	0.05

Cinco Rama substation has a total capacity of 0.43 MVA and a peak load of 0.05 MW. Loading condition is within the safe operational threshold of 70%. The substations are not loaded and still safe in operation base on load parameter. This indicates that the substation is well within safe loading conditions and has substantial capacity to accommodate additional load without risk of overloading.

Forecasted Consumption Data

		Coincident Peak MW	Contracted MW	Pending MW	Planned MW	Retail Electricity Suppliers MW	Existing Contracting Level	Target Contracting Level	MW Surplus / Deficit
2024	Jan	0.04	0.00	0.04	0.000		0%	100%	0.00
	Feb	0.04	0.00	0.04	0.000		0%	100%	0.00
	Mar	0.04	0.00	0.04	0.000		0%	100%	0.00
	Apr	0.04	0.00	0.04	0.000		0%	100%	0.00
	May	0.05	0.00	0.05	0.000		0%	100%	0.00
	Jun	0.04	0.00	0.04	0.000		0%	100%	0.00
	Jul	0.04	0.00	0.04	0.000		0%	100%	0.00
	Aug	0.04	0.00	0.04	0.000		0%	100%	0.00
	Sep	0.04	0.00	0.04	0.000		0%	100%	0.00
	Oct	0.04	0.00	0.04	0.000		0%	100%	0.00
	Nov	0.04	0.00	0.04	0.000		0%	100%	0.00
	Dec	0.04	0.00	0.04	0.000		0%	100%	0.00
2025	Jan	0.04	0.00	0.04	0.000		0%	100%	0.00
	Feb	0.04	0.00	0.04	0.000		0%	100%	0.00
	Mar	0.05	0.00	0.05	0.000		0%	100%	0.00
	Apr	0.04	0.00	0.04	0.000		0%	100%	0.00
	May	0.05	0.00	0.05	0.000		0%	100%	0.00
	Jun	0.04	0.00	0.04	0.000		0%	100%	0.00
	Jul	0.04	0.00	0.04	0.000		0%	100%	0.00
	Aug	0.04	0.00	0.04	0.000		0%	100%	0.00
	Sep	0.04	0.00	0.04	0.000		0%	100%	0.00
	Oct	0.04	0.00	0.04	0.000		0%	100%	0.00
	Nov	0.04	0.00	0.04	0.000		0%	100%	0.00

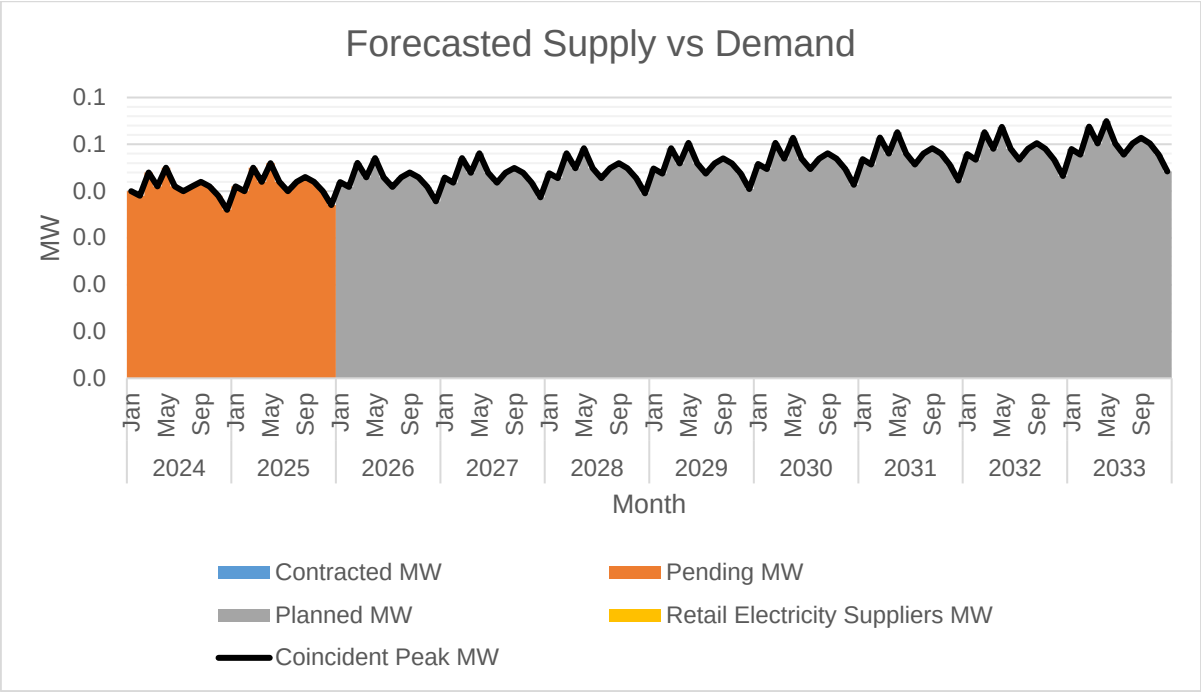
	Dec	0.04	0.00	0.04	0.000		0%	100%	0.00
2026	Jan	0.04	0.00	0.00	0.042		0%	100%	0.00
	Feb	0.04	0.00	0.00	0.041		0%	100%	0.00
	Mar	0.05	0.00	0.00	0.046		0%	100%	0.00
	Apr	0.04	0.00	0.00	0.043		0%	100%	0.00
	May	0.05	0.00	0.00	0.047		0%	100%	0.00
	Jun	0.04	0.00	0.00	0.043		0%	100%	0.00
	Jul	0.04	0.00	0.00	0.041		0%	100%	0.00
	Aug	0.04	0.00	0.00	0.043		0%	100%	0.00
	Sep	0.04	0.00	0.00	0.044		0%	100%	0.00
	Oct	0.04	0.00	0.00	0.043		0%	100%	0.00
	Nov	0.04	0.00	0.00	0.041		0%	100%	0.00
	Dec	0.04	0.00	0.00	0.038		0%	100%	0.00
2027	Jan	0.04	0.00	0.00	0.043		0%	100%	0.00
	Feb	0.04	0.00	0.00	0.042		0%	100%	0.00
	Mar	0.05	0.00	0.00	0.047		0%	100%	0.00
	Apr	0.04	0.00	0.00	0.044		0%	100%	0.00
	May	0.05	0.00	0.00	0.048		0%	100%	0.00
	Jun	0.04	0.00	0.00	0.044		0%	100%	0.00
	Jul	0.04	0.00	0.00	0.042		0%	100%	0.00
	Aug	0.04	0.00	0.00	0.044		0%	100%	0.00
	Sep	0.04	0.00	0.00	0.045		0%	100%	0.00
	Oct	0.04	0.00	0.00	0.044		0%	100%	0.00
	Nov	0.04	0.00	0.00	0.042		0%	100%	0.00
	Dec	0.04	0.00	0.00	0.039		0%	100%	0.00
2028	Jan	0.04	0.00	0.00	0.044		0%	100%	0.00
	Feb	0.04	0.00	0.00	0.043		0%	100%	0.00
	Mar	0.05	0.00	0.00	0.048		0%	100%	0.00
	Apr	0.04	0.00	0.00	0.045		0%	100%	0.00
	May	0.05	0.00	0.00	0.049		0%	100%	0.00
	Jun	0.04	0.00	0.00	0.045		0%	100%	0.00

	Jul	0.04	0.00	0.00	0.043		0%	100%	0.00
	Aug	0.04	0.00	0.00	0.045		0%	100%	0.00
	Sep	0.05	0.00	0.00	0.046		0%	100%	0.00
	Oct	0.04	0.00	0.00	0.045		0%	100%	0.00
	Nov	0.04	0.00	0.00	0.043		0%	100%	0.00
	Dec	0.04	0.00	0.00	0.040		0%	100%	0.00
2029	Jan	0.04	0.00	0.00	0.045		0%	100%	0.00
	Feb	0.04	0.00	0.00	0.044		0%	100%	0.00
	Mar	0.05	0.00	0.00	0.049		0%	100%	0.00
	Apr	0.05	0.00	0.00	0.046		0%	100%	0.00
	May	0.05	0.00	0.00	0.050		0%	100%	0.00
	Jun	0.05	0.00	0.00	0.046		0%	100%	0.00
	Jul	0.04	0.00	0.00	0.044		0%	100%	0.00
	Aug	0.05	0.00	0.00	0.046		0%	100%	0.00
	Sep	0.05	0.00	0.00	0.047		0%	100%	0.00
	Oct	0.05	0.00	0.00	0.046		0%	100%	0.00
	Nov	0.04	0.00	0.00	0.044		0%	100%	0.00
	Dec	0.04	0.00	0.00	0.040		0%	100%	0.00
2030	Jan	0.05	0.00	0.00	0.046		0%	100%	0.00
	Feb	0.04	0.00	0.00	0.045		0%	100%	0.00
	Mar	0.05	0.00	0.00	0.050		0%	100%	0.00
	Apr	0.05	0.00	0.00	0.047		0%	100%	0.00
	May	0.05	0.00	0.00	0.051		0%	100%	0.00
	Jun	0.05	0.00	0.00	0.047		0%	100%	0.00
	Jul	0.04	0.00	0.00	0.045		0%	100%	0.00
	Aug	0.05	0.00	0.00	0.047		0%	100%	0.00
	Sep	0.05	0.00	0.00	0.048		0%	100%	0.00
	Oct	0.05	0.00	0.00	0.047		0%	100%	0.00
	Nov	0.04	0.00	0.00	0.045		0%	100%	0.00
	Dec	0.04	0.00	0.00	0.041		0%	100%	0.00
2031	Jan	0.05	0.00	0.00	0.047		0%	100%	0.00

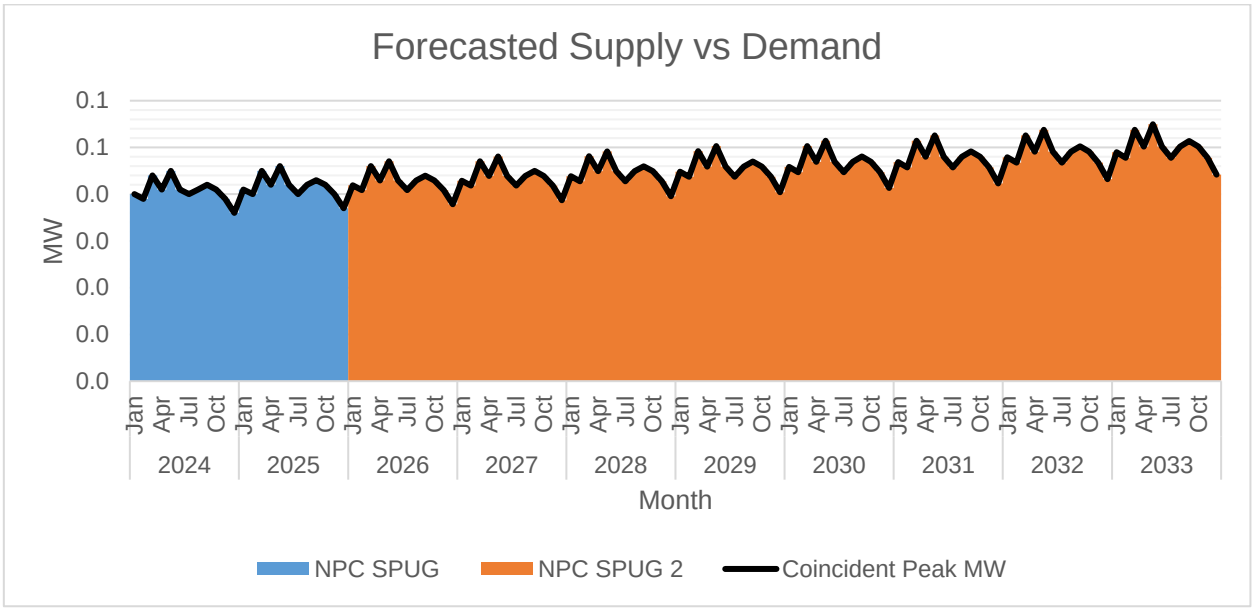
	Feb	0.05	0.00	0.00	0.046		0%	100%	0.00
	Mar	0.05	0.00	0.00	0.051		0%	100%	0.00
	Apr	0.05	0.00	0.00	0.048		0%	100%	0.00
	May	0.05	0.00	0.00	0.053		0%	100%	0.00
	Jun	0.05	0.00	0.00	0.048		0%	100%	0.00
	Jul	0.05	0.00	0.00	0.046		0%	100%	0.00
	Aug	0.05	0.00	0.00	0.048		0%	100%	0.00
	Sep	0.05	0.00	0.00	0.049		0%	100%	0.00
	Oct	0.05	0.00	0.00	0.048		0%	100%	0.00
	Nov	0.05	0.00	0.00	0.046		0%	100%	0.00
	Dec	0.04	0.00	0.00	0.042		0%	100%	0.00
2032	Jan	0.05	0.00	0.00	0.048		0%	100%	0.00
	Feb	0.05	0.00	0.00	0.047		0%	100%	0.00
	Mar	0.05	0.00	0.00	0.053		0%	100%	0.00
	Apr	0.05	0.00	0.00	0.049		0%	100%	0.00
	May	0.05	0.00	0.00	0.054		0%	100%	0.00
	Jun	0.05	0.00	0.00	0.049		0%	100%	0.00
	Jul	0.05	0.00	0.00	0.047		0%	100%	0.00
	Aug	0.05	0.00	0.00	0.049		0%	100%	0.00
	Sep	0.05	0.00	0.00	0.050		0%	100%	0.00
	Oct	0.05	0.00	0.00	0.049		0%	100%	0.00
	Nov	0.05	0.00	0.00	0.047		0%	100%	0.00
	Dec	0.04	0.00	0.00	0.043		0%	100%	0.00
2033	Jan	0.05	0.00	0.00	0.049		0%	100%	0.00
	Feb	0.05	0.00	0.00	0.048		0%	100%	0.00
	Mar	0.05	0.00	0.00	0.054		0%	100%	0.00
	Apr	0.05	0.00	0.00	0.050		0%	100%	0.00
	May	0.05	0.00	0.00	0.055		0%	100%	0.00
	Jun	0.05	0.00	0.00	0.050		0%	100%	0.00
	Jul	0.05	0.00	0.00	0.048		0%	100%	0.00
	Aug	0.05	0.00	0.00	0.050		0%	100%	0.00

	Sep	0.05	0.00	0.00	0.051		0%	100%	0.00
	Oct	0.05	0.00	0.00	0.050		0%	100%	0.00
	Nov	0.05	0.00	0.00	0.048		0%	100%	0.00
	Dec	0.04	0.00	0.00	0.044		0%	100%	0.00

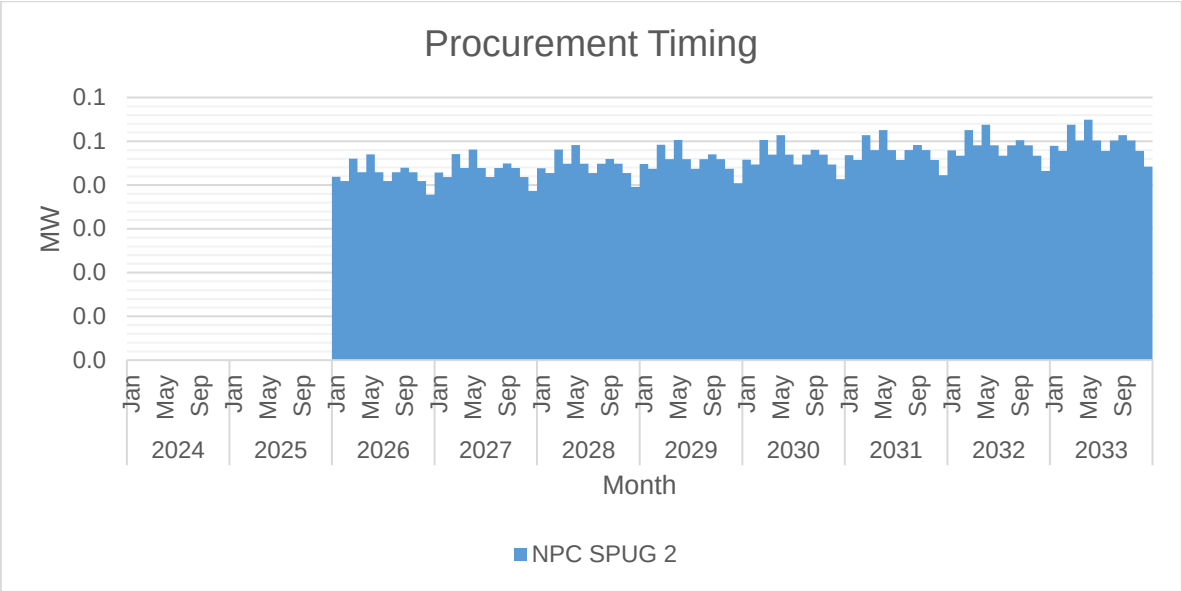
The Peak Demand was forecasted using growth rate analyses due to the load curve of historical data is not in linear and lack of historical data and was assumed to occur on the month of May due to the expected higher consumption due to the effect of summer season hence higher energy consumption. Monthly Peak Demand is at its lowest on the month of December due to cold weather at that time. In general, Peak Demand is expected to grow at a rate of 2 - 3% annually in the next 5 years.



The available supply is generally below the Peak Demand. This is because the NPC SPUG relies on generators to generate power, which is an expensive and inefficient method. As a result, they can only provide electricity for sixteen (16) hours a day, from 1:00 pm to 5:00 am.

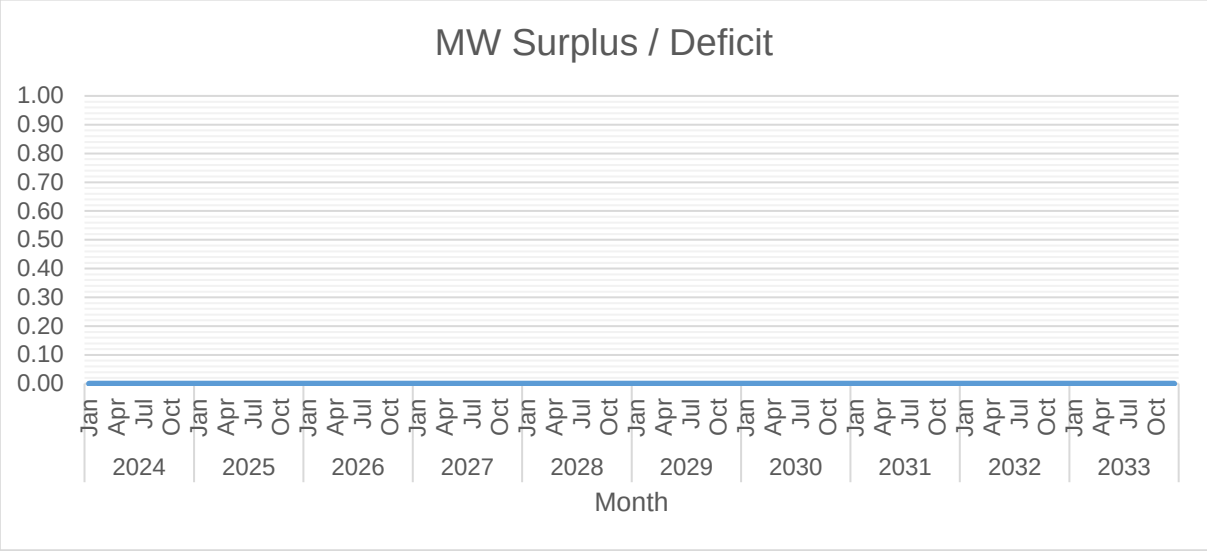


Of the available supply, the largest is 0.055 MW from NPC SPUG 2. The graph shows the forecasted electricity supply and demand from 2024 to 2033. Initial supply (NPC SPUG) fades by mid-2025, with sustained supply (NPC SPUG 2) taking over. The black line represents the forecasted peak demand in megawatts (MW), which steadily increases over the years, indicating growing electricity consumption. The total supply remains consistently above the peak demand throughout the period, suggesting sufficient capacity to meet future energy needs. This ensures a stable balance between supply and demand as electricity consumption grows.



The first wave of supply procurement will be for 0.042 MW planned to be available by the month of January. This will be followed by January. The graph shows the gradual ramp-up of NPC SPUG 2 capacity procurement starting mid-2025, aligning with increasing electricity demand. Capacity grows consistently over time, reaching its peak by 2033 to fully meet forecasted demand.

Currently, there is contracting by 100%. The highest target contracting level is 100% which is expected to occur in 2024 onwards. The contracting level is targeted to reach its highest at 100% consistently from 2024 to 2033, indicating full coverage of the forecasted demand through secured supply agreements during this period, and none lowest target contracting level.



Currently, still zero, no contributed available for MW surplus / Deficit.

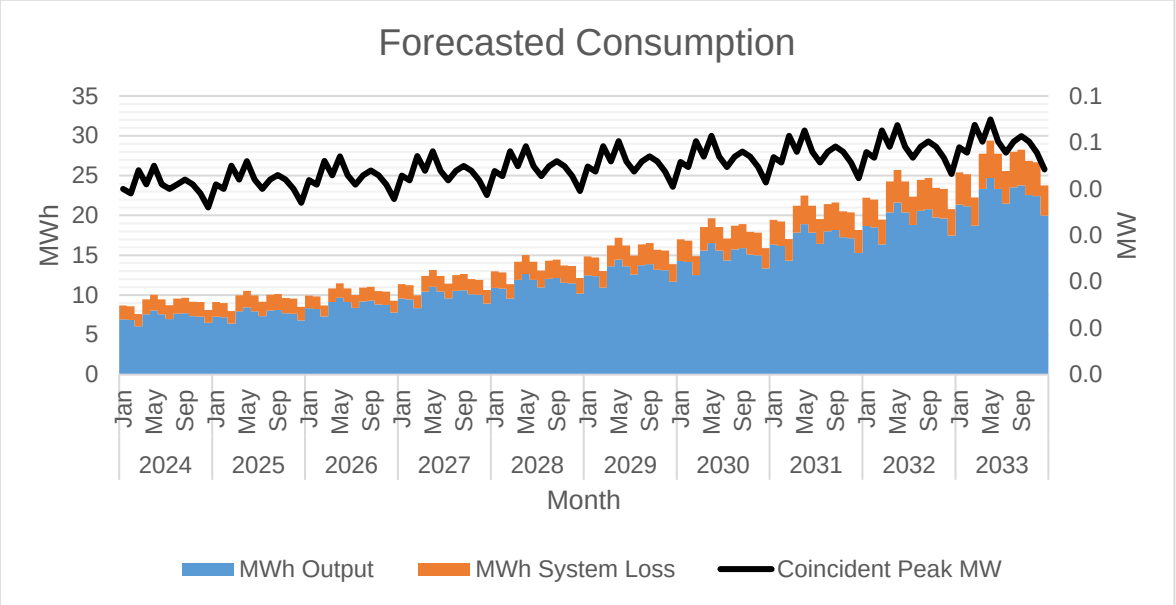
		MWh Offtake	MWh Output	MWh System Loss	Transm'n Loss	System Loss
2024	Jan	9	7	2	0.00%	19.93%
	Feb	9	7	2	0.00%	19.93%
	Mar	8	6	2	0.00%	19.93%
	Apr	9	8	2	0.00%	19.93%
	May	10	8	2	0.00%	19.93%
	Jun	9	8	2	0.00%	19.93%
	Jul	9	7	2	0.00%	19.93%
	Aug	10	8	2	0.00%	19.93%
	Sep	10	8	2	0.00%	19.93%
	Oct	9	7	2	0.00%	19.93%
	Nov	9	7	2	0.00%	19.93%
	Dec	8	7	2	0.00%	19.94%
2025	Jan	9	7	2	0.00%	19.95%
	Feb	9	7	2	0.00%	19.74%
	Mar	8	6	2	0.00%	19.96%
	Apr	10	8	2	0.00%	19.94%
	May	11	8	2	0.00%	19.94%
	Jun	10	8	2	0.00%	19.94%
	Jul	9	7	2	0.00%	19.94%
	Aug	10	8	2	0.00%	19.95%
	Sep	10	8	2	0.00%	19.95%
	Oct	10	8	2	0.00%	19.95%
	Nov	10	8	2	0.00%	19.95%
	Dec	9	7	2	0.00%	19.95%
2026	Jan	10	8	2	0.00%	15.95%
	Feb	10	8	2	0.00%	15.94%
	Mar	9	7	1	0.00%	15.94%

	Apr	11	9	2	0.00%	15.95%
	May	11	10	2	0.00%	15.94%
	Jun	11	9	2	0.00%	15.95%
	Jul	10	8	2	0.00%	15.94%
	Aug	11	9	2	0.00%	15.94%
	Sep	11	9	2	0.00%	15.95%
	Oct	10	9	2	0.00%	15.95%
	Nov	10	9	2	0.00%	15.95%
	Dec	9	8	1	0.00%	15.95%
2027	Jan	11	10	2	0.00%	15.94%
	Feb	11	9	2	0.00%	15.94%
	Mar	10	8	2	0.00%	15.95%
	Apr	12	10	2	0.00%	15.94%
	May	13	11	2	0.00%	15.94%
	Jun	12	10	2	0.00%	15.94%
	Jul	11	10	2	0.00%	15.94%
	Aug	13	11	2	0.00%	15.95%
	Sep	13	11	2	0.00%	15.95%
	Oct	12	10	2	0.00%	15.94%
	Nov	12	10	2	0.00%	15.94%
	Dec	11	9	2	0.00%	15.94%
2028	Jan	13	11	2	0.00%	15.94%
	Feb	13	11	2	0.00%	15.94%
	Mar	11	10	2	0.00%	15.94%
	Apr	14	12	2	0.00%	15.94%
	May	15	13	2	0.00%	15.95%
	Jun	14	12	2	0.00%	15.94%
	Jul	13	11	2	0.00%	15.94%
	Aug	14	12	2	0.00%	15.95%
	Sep	14	12	2	0.00%	15.94%
	Oct	14	12	2	0.00%	15.94%
	Nov	14	11	2	0.00%	15.94%
	Dec	12	10	2	0.00%	15.95%
2029	Jan	15	12	2	0.00%	15.94%
	Feb	15	12	2	0.00%	15.95%
	Mar	13	11	2	0.00%	15.94%
	Apr	16	14	3	0.00%	15.94%
	May	17	14	3	0.00%	15.94%
	Jun	16	14	3	0.00%	15.94%
	Jul	15	13	2	0.00%	15.95%
	Aug	16	14	3	0.00%	15.94%
	Sep	17	14	3	0.00%	15.94%
	Oct	16	13	3	0.00%	15.95%
	Nov	16	13	2	0.00%	15.95%
	Dec	14	12	2	0.00%	15.95%
2030	Jan	17	14	3	0.00%	15.94%
	Feb	17	14	3	0.00%	15.94%

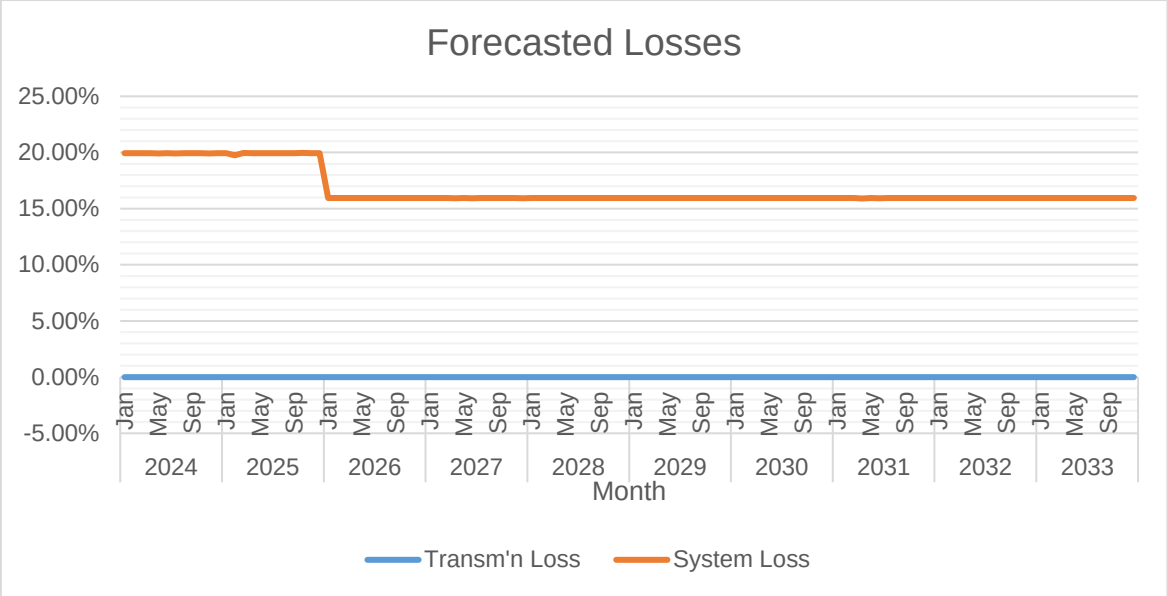
	Mar	15	13	2	0.00%	15.95%
	Apr	19	16	3	0.00%	15.94%
	May	20	17	3	0.00%	15.94%
	Jun	19	16	3	0.00%	15.94%
	Jul	17	14	3	0.00%	15.94%
	Aug	19	16	3	0.00%	15.94%
	Sep	19	16	3	0.00%	15.94%
	Oct	18	15	3	0.00%	15.94%
	Nov	18	15	3	0.00%	15.94%
	Dec	16	13	3	0.00%	15.94%
2031	Jan	19	16	3	0.00%	15.95%
	Feb	19	16	3	0.00%	15.94%
	Mar	17	14	3	0.00%	15.95%
	Apr	21	18	3	0.00%	15.90%
	May	22	19	4	0.00%	15.94%
	Jun	21	18	3	0.00%	15.94%
	Jul	20	16	3	0.00%	15.94%
	Aug	21	18	3	0.00%	15.95%
	Sep	22	18	3	0.00%	15.94%
	Oct	21	17	3	0.00%	15.94%
	Nov	20	17	3	0.00%	15.94%
	Dec	18	15	3	0.00%	15.94%
2032	Jan	22	19	4	0.00%	15.94%
	Feb	22	18	4	0.00%	15.94%
	Mar	19	16	3	0.00%	15.94%
	Apr	24	20	4	0.00%	15.95%
	May	26	22	4	0.00%	15.94%
	Jun	24	20	4	0.00%	15.95%
	Jul	22	19	4	0.00%	15.94%
	Aug	24	21	4	0.00%	15.94%
	Sep	25	21	4	0.00%	15.94%
	Oct	23	20	4	0.00%	15.94%
	Nov	23	20	4	0.00%	15.94%
	Dec	21	17	3	0.00%	15.94%
2033	Jan	25	21	4	0.00%	15.94%
	Feb	25	21	4	0.00%	15.94%
	Mar	22	19	4	0.00%	15.94%
	Apr	28	23	4	0.00%	15.94%
	May	29	25	5	0.00%	15.95%
	Jun	28	23	4	0.00%	15.94%
	Jul	26	21	4	0.00%	15.94%
	Aug	28	24	4	0.00%	15.94%
	Sep	28	24	5	0.00%	15.95%
	Oct	27	23	4	0.00%	15.94%
	Nov	27	22	4	0.00%	15.94%
	Dec	24	20	4	0.00%	15.94%

MWh Offtake was forecasted using growth rate analyses due to the load curve of historical data is not in linear and lack of historical data. The assumed load factor is 55.15%.

System Loss was calculated through a Load Flow Study conducted on every year by Corporate Planning Department using Distribution System Application Software (DSAS) software. Based on the same study, the Distribution System can adequately convey electricity to customers.



MWh Output consistent growth from 2024 to 2033, with monthly values increasing from 6–8 MWh in 2024 to 20–25 MWh by 2033. Growth is steady during the early years, averaging 7–10% annually, and accelerates slightly after 2028, reaching an annual growth rate of 12–15% in later years. Seasonal variations are evident, with higher output in months like May and September, likely reflecting peak demand periods. Overall, MWh Output nearly triples over the forecast period, driven by increasing energy demand and system capacity expansion, with an average annual growth rate of approximately 10%. The Technical Loss and Non-Technical Loss values are small decimals in MWh because they represent the proportion of energy lost relative to the total energy in the system.



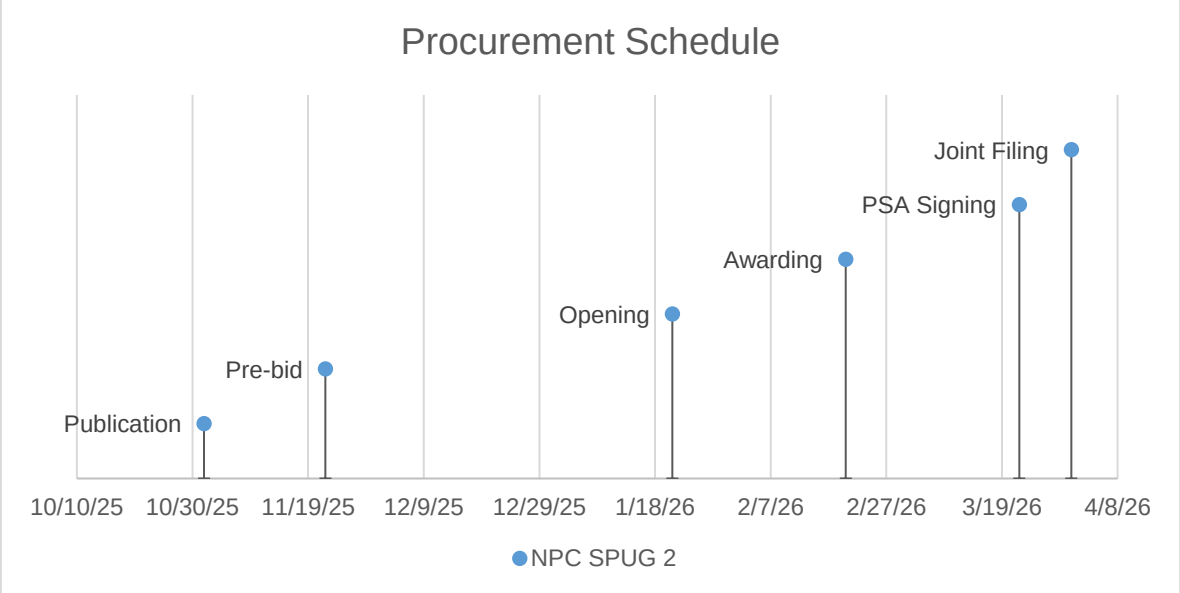
Transmission Loss remains consistently at 0.00% throughout 2024–2033, indicating negligible or excluded transmission losses. In contrast, System Loss begins at 19.93%–19.94% in 2024 and gradually declines over the forecast period, reaching a stable range of 15.94%–15.95% by 2027. The highest recorded System Loss is 19.96% (March 2025), while the lowest is 15.90% (April 2031). This reduction reflects improvements in distribution efficiency or system upgrades, with total losses decreasing by approximately 4% over the forecast period.

Power Supply

Case No.	Type	GenCo	Minimum MW	Minimum MWh/yr	Maximum MWh/yr	PSA Start	PSA End
NPC SPUG	Base	National Power Corporation	0.038	8	29	12/26/2022	12/25/2025

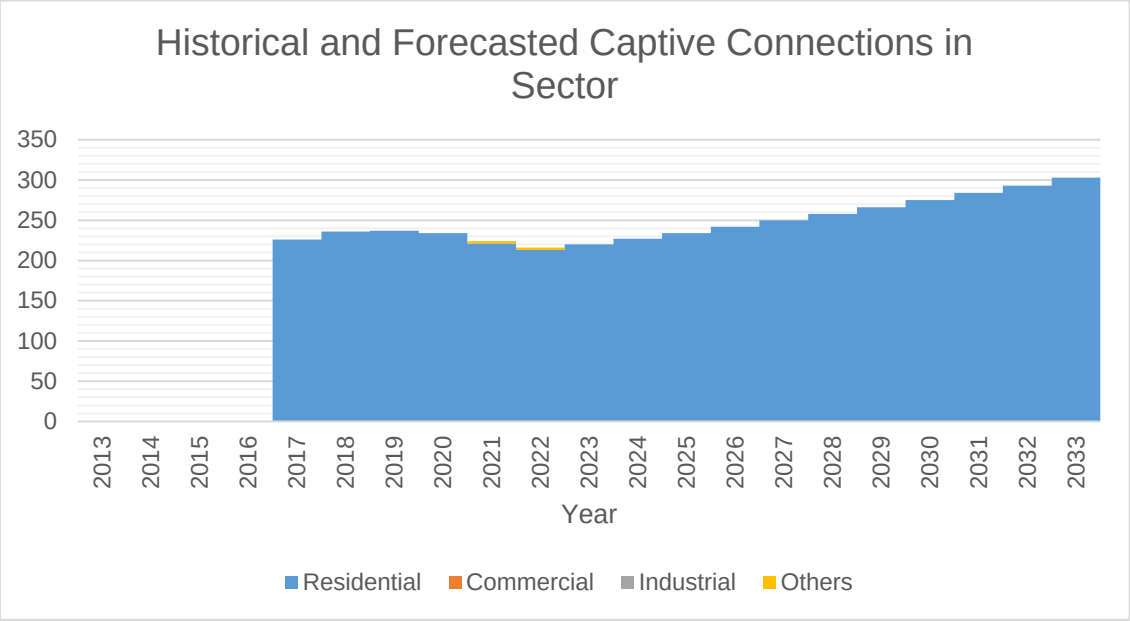
The PSA with NPC-SPUG still pending.

	NPC SPUG 2
Type	Base
Minimum MW	0.04
Minimum MWh/yr	9
PSA Start	12/26/2025
PSA End	12/25/2033
Publication	11/1/2025
Pre-bid	11/22/2025
Opening	1/21/2026
Awarding	2/20/2026
PSA Signing	3/22/2026
Joint Filing	3/31/2026



For planned NPC-SPUG 2 are based on the procurement schedule.

Captive Customer Connections



The number of Residential connections is expected to grow at a rate of 3.18% annually. Said customer class is expected to account for 100% of the total consumption.